

Indiana Department of Environmental Management

We make Indiana a cleaner, healthier place to live.

Frank O'Bannon Governor

Lori F. Kaplan Commissioner

100 North Senate Avenue P. O. Box 6015 Indianapolis, Indiana 46206-6015 (317) 232-8603 (800) 451-6027 www.state.in.us/idem

MINOR SOURCE OPERATING PERMIT OFFICE OF AIR QUALITY

Cummins, Inc. 1460 National Road Columbus, Indiana 47201

(herein known as the Permittee) is hereby authorized to operate subject to the conditions contained herein, the emission units described in Section A (Source Summary) of this permit.

This permit is issued to the above mentioned company under the provisions of 326 IAC 2-1.1, 326 IAC 2-6.1 and 40 CFR 52.780, with conditions listed on the attached pages.

Operation Permit No.: MSOP 005-15444-00053

Issued by: Original Signed by Paul Dubenetzky

Paul Dubenetzky, Branch Chief

Office of Air Quality

Issuance Date: July 24, 2002

Expiration Date: July 24, 2007

Page 2 of 22 MSOP 005-15444-00053

Cummins, Inc. Columbus, Indiana Permit Reviewer: ERG/YC

TABLE OF CONTENTS

SECTION A A.1 A.2.	SOURCE SUMMARY General Information [326 IAC 2-5.1-3(c)] [326 IAC 2-6.1-4(a)] Emission Units and Pollution Control Equipment Summary
B.1 B.2 B.3 B.4 B.5 B.6	GENERAL CONDITIONS Permit No Defense [IC 13] Definitions Effective Date of the Permit [IC 13-15-5-3] Modification to Permit [326 IAC 2] Minor Source Operating Permit [326 IAC 2-6.1] Permit Term [326 IAC 2-6.1-7]
C.1 C.2 C.3 C.4 C.5 C.6 C.7 C.8 C.9 C.10	SOURCE OPERATION CONDITIONS Part 70 Minor Source Status [326 IAC 2-7] PSD Minor Source Status [326 IAC 2-2] Preventive Maintenance Plan [326 IAC 1-6-3] Permit Revision [326 IAC 2-5.1-3(e)(3)] [326 IAC 2-6.1-6] Inspection and Entry [326 IAC 2-5.1-3(e)(4)(B)] [326 IAC 2-6.1-5(a)(4)] Transfer of Ownership or Operation [326 IAC 2-6.1-6(d)(3)] Permit Revocation [326 IAC 2-1-9] Opacity [326 IAC 5-1] Fugitive Dust Emissions [326 IAC 6-4] Stack Height [326 IAC 1-7]
Testin C.11	g Requirements Performance Testing [326 IAC 3-6]
Compl C.12	iance Monitoring Monitoring Methods [326 IAC 3]
Record C.13 C.14 C.15 C.16 C.17	Malfunctions Reporting Requirements Malfunctions Report [326 IAC 1-6-2] Monitoring Data Availability [326 IAC 2-6.1-2] [IC 13-14-1-3] General Record Keeping Requirements [326 IAC 2-6.1-2] General Reporting Requirements [326 IAC 2-1.1-11] [326 IAC 2-6.1-2] [IC 13-14-1-13 Annual Notification [326 IAC 2-6.1-5(a)(5)]
SECTION D.1	EMISSIONS UNIT OPERATION CONDITIONS

Emission Limitations and Standards [326 IAC 2-6.1]

- D.1.1 Particulate Matter (PM) [326 IAC 6-2-3]
- D.1.2 Sulfur Dioxide (SO₂) [326 IAC 7-1.1-2] [326 IAC 7-2-1]
- D.1.3 Preventive Maintenance Plan [326 IAC 2-8-4(9)]

Compliance Determination Requirements [326 IAC 2-5.1-3(e)(2)] [326 IAC 2-6.1-5(a)(2)] D.1.4 Sulfur Dioxide Emissions and Sulfur Content [326 IAC 3-7-4] [326 IAC 3-6]

Compliance Monitoring Requirements [326 IAC 2-5.1-3(e)(2)] [326 IAC 2-6.1-5(a)(2)]

D.1.5 Visible Emissions Notations

Page 3 of 22 MSOP 005-15444-00053

Cummins, Inc. Columbus, Indiana Permit Reviewer: ERG/YC

TABLE OF CONTENTS (Continued)

Record Keeping and Reporting Requirements [326 IAC 2-5.1-3(e)(2)] [326 IAC 2-6.1-5(a)(2)]

- D.1.6 Record Keeping Requirements
- D.1.7 Reporting Requirements

SECTION D.2 EMISSIONS UNIT OPERATION CONDITIONS

D.2.1 Limitation on Operating Hours

Record Keeping and Reporting Requirement [326 IAC 2-5.1-3(e)(2)][326 IAC 2-6.1-5(a)(2)]

D.2.2 Record Keeping Requirements

SECTION D.3 EMISSIONS UNIT OPERATION CONDITIONS Emission Limitation and Standards

Natural Gas Fired Boiler Certification Annual Notification Malfunction Report

SECTION A SOURCE SUMMARY

This permit is based on information requested by the Indiana Department of Environmental Management (IDEM), Office of Air Quality (OAQ). The information describing the source contained in conditions A.1 through A.3 is descriptive information and does not constitute enforceable conditions. However, the Permittee should be aware that a physical change or a change in the method of operation that may render this descriptive information obsolete or inaccurate may trigger requirements for the Permittee to obtain additional permits or seek modification of this permit pursuant to 326 IAC 2, or change other applicable requirements presented in the permit application.

A.1 General Information [326 IAC 2-5.1-3(c)] [326 IAC 2-6.1-4(a)]

The Permittee owns and operates a stationary diesel engine fuel system manufacturing plant.

Authorized Individual: Scott J. Schneider, Plant Manager

Source Address: 1460 National Road, Columbus, Indiana 47201 Mailing Address: P. O. Box 3005, Columbus, Indiana 47202-3005

Phone Number: (812) 377-5000

SIC Code: 3519

County Location: Bartholomew

County Status: Attainment for all criteria pollutants
Source Status: Minor Source Operating Permit

Minor Source, under PSD

Minor Source, Section 112 of the Clean Air Act

Not 1 of 28 source categories

A.2 Emissions units and Pollution Control Equipment Summary

This stationary source is approved to operate the following emissions units and pollution control devices:

- (a) One (1) natural gas-fired boiler, using No. 2 fuel oil as a back-up, identified as Boiler #1, with a maximum heat input capacity of 20.9 million British thermal units (MMBtu) per hour, constructed before 1972, and exhausting to stack #1.
- (b) One (1) natural gas-fired boiler, using No. 2 fuel oil as a back-up, identified as Boiler #2, with a maximum heat input capacity of 14.6 million British thermal units (MMBtu) per hour, constructed before 1972, and exhausting to stack #2.
- (c) One (1) No.2 fuel-fired emergency generator, identified as FSP-95-01, with a maximum heat input capacity of 4.16 million British thermal units (MMBtu) per hour, operating less than 500 hours per year, and exhausting at stack # FSP-95-01.
- (d) One (1) No. 2 fuel storage tank, with a maximum capacity of 10,000 gallons, constructed in 1996.
- (e) One (1) gasoline storage tank, with a maximum capacity of 500 gallons, constructed in 1996.
- (f) One (1) diesel fuel system manufacturing line, with maximum production rates of 20,000 fuel injectors and 6,800 fuel pumps per month, with the PM10 and SO₂ emissions less than five (5) pounds per hour or twenty-five (25) pounds per day, CO emissions less than twenty-five (25) pounds per day, lead emissions less than six-tenths (0.6) tons per year or three and twenty-nine (3.29) pounds per day, and emitting greater than one (1) pound per day but less than five (5) pounds per day or one (1) ton per year of a single HAP, or emitting greater than one (1) pound per day but less than twelve and five tenths

Page 5 of 22 MSOP 005-15444-00053

Cummins, Inc. Columbus, Indiana Permit Reviewer: ERG/YC

(12.5) pounds per day or two and five tenths (2.5) ton per year of any combination of HAPs, including the following processes:

- (1) Lubrite process for the fuel pump bases, including cleaning with an alkaline cleaner, grain refining, and coating with iron-phosphate acid.
- (2) Test rigs for fuel pumps and injectors, which circulate a simulated diesel fuel (16A calibration fluid) in a closed loop system to simulate the operation of diesel fuel in an engine.
- (3) Test stands for fuel injectors, which circulate a simulated diesel fuel (1487 calibration fluid) in a closed loop system to simulate the operation of diesel fuel in an engine.
- (4) Metal machining processes, using a water based coolant and tooling process to remove the excess metal from parts.
- (5) Water jet de-burring process, using water jets to removed excess metal from parts.
- (6) Water cooling towers.
- (7) Extrude hone process, used to remove excess metal from parts by pressing a semi-solid media through parts.
- (8) Ultrasonic parts washers, using alkaline chemicals to removed residual oils, coolants, and debris from the injector parts.
- (9) Electric VPC Process Units, used to heat treat metal parts.
- (10) Poppers, used to test pressure resistance in the fuel injectors and to remove any residual metal from the fuel injectors.

SECTION B GENERAL CONDITIONS

B.1 Permit No Defense [IC 13]

This permit does not relieve the Permittee of the responsibility to comply with the provisions of the Indiana Environmental Management Law (IC 13-11 through 13-20; 13-22 through 13-25; and 13-30), the Air Pollution Control Law (IC 13-17) and the rules promulgated thereunder, as well as other applicable local, state, and federal requirements.

B.2 Definitions

Terms in this permit shall have the definition assigned to such terms in the referenced regulation. In the absence of definitions in the referenced regulation, any applicable definitions found in IC 13-11, 326 IAC 1-2, and 326 IAC 2-1.1-1 shall prevail.

B.3 Effective Date of the Permit [IC 13-15-5-3]

Pursuant to IC 13-15-5-3, this permit becomes effective upon its issuance.

B.4 Modification to Permit [326 IAC 2]

All requirements and conditions of this permit shall remain in effect unless modified in a manner consistent with procedures established for modifications of permits pursuant to 326 IAC 2 (Permit Review Rules).

B.5 Minor Source Operating Permit [326 IAC 2-6.1]

- (a) The operation permit will be subject to annual operating permit fees pursuant to 326 IAC 2-1.1-7(Fees).
- (b) Pursuant to 326 IAC 2-6.1-7, the Permittee shall apply for an operation permit renewal at least ninety (90) days prior to the expiration date of this permit. If IDEM, OAQ, upon receiving a timely and complete permit application, fails to issue or deny the permit renewal prior to the expiration date of this permit, this existing permit shall not expire and all terms and conditions shall continue in effect until the renewal permit has been issued or denied. The operation permit issued shall contain as a minimum the conditions in Section C and Section D of this permit.

B.6 Permit Term [326 IAC 2-6.1-7]

This permit is issued for a fixed term of five (5) years from the original date, as determined in accordance with IC 4-21.5-3-5(f) and IC 13-15-5-3. Subsequent revisions, modifications or amendments of this permit do not affect the expiration

SECTION C

SOURCE OPERATION CONDITIONS

Entire Source

C.1 Part 70 Minor Source Status [326 IAC 2-7]

- (a) The potential to emit any regulated pollutant from the entire source is less than one hundred (100) tons per twelve (12) consecutive month period;
- (b) The potential to emit any individual hazardous air pollutant (HAP) from the entire source is less than ten (10) tons per twelve (12) consecutive month period; and
- (c) The potential to emit any combination of HAPs from the entire source is less than twenty-five (25) tons per twelve (12) consecutive month period.

Therefore, the requirements of 326 IAC 2-7 are not applicable. Any change or modification which may increase potential to emit of any of the pollutant to the levels greater than the limits above, shall cause this source to be considered a major source under Part 70 program, and shall require approval from IDEM, OAQ prior to making the change.

C.2 PSD Minor Source Status [326 IAC 2-2] [40 CFR 52.21]

- (a) The total source potential to emit of all criteria pollutants is less than 250 tons per year. Therefore the requirements of 326 IAC 2-2 (Prevention of Significant Deterioration) and 40 CFR 52.21 will not apply.
- (b) Any change or modification which may increase potential to emit to 250 tons per year from this source, shall cause this source to be considered a major source under PSD, 326 IAC 2-2 and 40 CFR 52.21, and shall require approval from IDEM, OAQ prior to making the change.

C.3 Preventive Maintenance Plan [326 IAC 1-6-3]

- (a) If required by specific condition(s) in Section D of this permit, the Permittee shall prepare and maintain Preventive Maintenance Plans (PMP) after issuance of this permit, including the following information on each emissions unit:
 - (1) Identification of the individual(s) responsible for inspecting, maintaining, and repairing emission control devices;
 - (2) A description of the items or conditions that will be inspected and the inspection schedule for said items or conditions;
 - (3) Identification and quantification of the replacement parts that will be maintained in inventory for quick replacement.
- (b) The Permittee shall implement the Preventive Maintenance Plans as necessary to ensure that failure to implement the Preventive Maintenance Plan does not cause or contribute to a violation of any limitation on emissions or potential to emit.
- (c) PMP's shall be submitted to IDEM, OAQ, upon request and shall be subject to review and approval by IDEM, OAQ. IDEM, OAQ, may require the Permittee to revise its Preventive Maintenance Plan whenever lack of proper maintenance causes or contributes to any violation.

Page 8 of 22 MSOP 005-15444-00053

Cummins, Inc. Columbus, Indiana Permit Reviewer: ERG/YC

C.4 Permit Revision [326 IAC 2-5.1-3(e)(3)] [326 IAC 2-6.1-6]

- (a) The Permittee must comply with the requirements of 326 IAC 2-6.1-6 whenever the Permittee seeks to amend or modify this permit.
- (b) Any application requesting an amendment or modification of this permit shall be submitted to:

Indiana Department of Environmental Management Permits Branch, Office of Air Quality 100 North Senate Avenue, P.O. Box 6015 Indianapolis, Indiana 46206-6015

Any such application should be certified by the "authorized individual" as defined by 326 IAC 2-1.1-1.

(c) The Permittee shall notify the OAQ within thirty (30) calendar days of implementing a notice-only change. [326 IAC 2-6.1-6(d)]

C.5 Inspection and Entry [326 IAC 2-5.1-3(e)(4)(B)] [326 IAC 2-6.1-5(a)(4)]

Upon presentation of proper identification cards, credentials, and other documents as may be required by law, and subject to the Permittee's right under all applicable laws and regulations to assert that the information collected by the agency is confidential and entitled to be treated as such, the Permittee shall allow IDEM, OAQ, U.S. EPA, or an authorized representative to perform the following:

- (a) Enter upon the Permittee's premises where a permitted source is located, or emissions related activity is conducted, or where records must be kept under the conditions of this permit;
- (b) Have access to and copy, at reasonable times, any records that must be kept under this title or the conditions of this permit or any operating permit revisions;
- (c) Inspect, at reasonable times, any processes, emissions units (including monitoring and air pollution control equipment), practices, or operations regulated or required under this permit or any operating permit revisions;
- (d) Sample or monitor, at reasonable times, substances or parameters for the purpose of assuring compliance with this permit or applicable requirements; and
- (e) Utilize any photographic, recording, testing, monitoring, or other equipment for the purpose of assuring compliance with this permit or applicable requirements.

C.6 Transfer of Ownership or Operation [326 IAC 2-6.1-6(d)(3)]

Pursuant to [326 IAC 2-6.1-6(d)(3)]:

- (a) In the event that ownership of this source is changed, the Permittee shall notify IDEM, OAQ, Permits Branch, within thirty (30) days of the change.
- (b) The written notification shall be sufficient to transfer the permit to the new owner by an notice-only change pursuant to 326 IAC 2-6.1-6(d)(3).
- (c) IDEM, OAQ, shall issue a revised permit.

Page 9 of 22 MSOP 005-15444-00053

Cummins, Inc. Columbus, Indiana Permit Reviewer: ERG/YC

The notification which shall be submitted by the Permittee does require the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1.

C.7 Permit Revocation [326 IAC 2-1-9]

Pursuant to 326 IAC 2-1-9(a)(Revocation of Permits), this permit to operate may be revoked for any of the following causes:

- (a) Violation of any conditions of this permit.
- (b) Failure to disclose all the relevant facts, or misrepresentation in obtaining this permit.
- (c) Changes in regulatory requirements that mandate either a temporary or permanent reduction of discharge of contaminants. However, the amendment of appropriate sections of this permit shall not require revocation of this permit.
- (d) Noncompliance with orders issued pursuant to 326 IAC 1-5 (Episode Alert Levels) to reduce emissions during an air pollution episode.
- (e) For any cause which establishes in the judgment of IDEM, the fact that continuance of this permit is not consistent with purposes of this article.

C.8 Opacity [326 IAC 5-1]

Pursuant to 326 IAC 5-1-2 (Opacity Limitations), except as provided in 326 IAC 5-1-3 (Temporary Alternative Opacity Limitations), opacity shall meet the following, unless otherwise stated in this permit:

- (a) Opacity shall not exceed an average of forty percent (40%) in any one (1) six (6) minute averaging period as determined in 326 IAC 5-1-4.
- (b) Opacity shall not exceed sixty percent (60%) for more than a cumulative total of fifteen (15) minutes (sixty (60) readings as measured according to 40 CFR 60, Appendix A, Method 9 or fifteen (15) one (1) minute non-overlapping integrated averages for a continuous opacity monitor) in a six (6) hour period.

C.9 Fugitive Dust Emissions [326 IAC 6-4]

The Permittee shall not allow fugitive dust to escape beyond the property line or boundaries of the property, right-of-way, or easement on which the source is located, in a manner that would violate 326 IAC 6-4 (Fugitive Dust Emissions). 326 IAC 6-4-2(4) is not federally enforceable.

C.10 Stack Height [326 IAC 1-7]

The Permittee shall comply with the applicable provisions of 326 IAC 1-7 (Stack Height Provisions), for all exhaust stacks through which a potential (before controls) of twenty-five (25) tons per year or more of particulate matter or sulfur dioxide is emitted by using good engineering practices (GEP) pursuant to 326 IAC 1-7-3.

Testing Requirements

C.11 Performance Testing [326 IAC 3-6]

(a) Compliance testing on new emissions units shall be conducted within 60 days after achieving maximum production rate, but no later than 180 days after initial start-up, if specified in Section D of this approval. All testing shall be performed according to the provisions of 326 IAC 3-6 (Source Sampling Procedures), except as provided elsewhere in this permit, utilizing any applicable procedures and analysis methods specified in 40

Page 10 of 22 MSOP 005-15444-00053

Cummins, Inc. Columbus, Indiana Permit Reviewer: ERG/YC

CFR 51, 40 CFR 60, 40 CFR 61, 40 CFR 63, 40 CFR 75, or other procedures approved by IDEM, OAQ.

A test protocol, except as provided elsewhere in this permit, shall be submitted to:

Indiana Department of Environmental Management Compliance Data Section, Office of Air Quality 100 North Senate Avenue, P. O. Box 6015 Indianapolis, Indiana 46206-6015

no later than thirty-five (35) days prior to the intended test date. The Permittee shall submit a notice of the actual test date to the above address so that it is received at least two weeks prior to the test date.

(b) All test reports must be received by IDEM, OAQ within forty-five (45) days after the completion of the testing. An extension may be granted by the IDEM, OAQ, if the source submits to IDEM, OAQ, a reasonable written explanation within five (5) days prior to the end of the initial forty-five (45) day period.

The documentation submitted by the Permittee does not require certification by the "authorized individual" as defined by 326 IAC 2-1.1-1.

Compliance Monitoring Requirements

C.12 Monitoring Methods [326 IAC 3]

Any monitoring or testing required by Section D of this permit shall be performed according to the provisions of 326 IAC 3, 40 CFR 60, Appendix A, or other approved methods as specified in this permit.

Record Keeping and Reporting Requirements

C.13 Malfunctions Report [326 IAC 1-6-2]

Pursuant to 326 IAC 1-6-2 (Records; Notice of Malfunction):

- (a) A record of all malfunctions, including startups or shutdowns of any facility or emission control equipment, which result in violations of applicable air pollution control regulations or applicable emission limitations shall be kept and retained for a period of three (3) years and shall be made available to the Indiana Department of Environmental Management (IDEM), Office of Air Quality(OAQ) or appointed representative upon request.
- (b) When a malfunction of any facility or emission control equipment occurs which lasts more than one (1) hour, said condition shall be reported to OAQ, using the Malfunction Report Forms (2 pages). Notification shall be made by telephone or facsimile, as soon as practicable, but in no event later than four (4) daytime business hours after the beginning of said occurrence.
- (c) Failure to report a malfunction of any emission control equipment shall constitute a violation of 326 IAC 1-6, and any other applicable rules. Information of the scope and expected duration of the malfunction shall be provided, including the items specified in 326 IAC 1-6-2(a)(1) through (6).

Page 11 of 22 MSOP 005-15444-00053

Cummins, Inc. Columbus, Indiana Permit Reviewer: ERG/YC

(d) Malfunction is defined as any sudden, unavoidable failure of any air pollution control equipment, process, or combustion or process equipment to operate in a normal and usual manner. [326 IAC 1-2-39]

C.14 Monitoring Data Availability [326 IAC 2-6.1-2] [IC 13-14-1-13]

- (a) With the exception of performance tests conducted in accordance with Section C-Performance Testing, all observations, sampling, maintenance procedures, and recordkeeping, required as a condition of this permit shall be performed at all times the equipment is operating at normal representative conditions.
- (b) As an alternative to the observations, sampling, maintenance procedures, and record keeping of subsection (a) above, when the equipment listed in Section D of this permit is not operating, the Permittee shall either record the fact that the equipment is shut down or perform the observations, sampling, maintenance procedures, and record keeping that would otherwise be required by this permit.
- (c) If the equipment is operating but abnormal conditions prevail, additional observations and sampling should be taken with a record made of the nature of the abnormality.
- (d) If for reasons beyond its control, the operator fails to make required observations, sampling, maintenance procedures, or record keeping, reasons for this must be recorded.
- (e) At its discretion, IDEM may excuse such failure providing adequate justification is documented and such failures do not exceed five percent (5%) of the operating time in any quarter.
- (f) Temporary, unscheduled unavailability of staff qualified to perform the required observations, sampling, maintenance procedures, or record keeping shall be considered a valid reason for failure to perform the requirements stated in (a) above.

C.15 General Record Keeping Requirements [326 IAC 2-6.1-2]

- (a) Records of all required monitoring data and support information shall be retained for a period of at least five (5) years from the date of monitoring sample, measurement, report, or application. These records shall be kept at the source location for a minimum of three (3) years and available upon the request of an IDEM, OAQ, representative. The records may be stored elsewhere for the remaining two (2) years as long as they are available upon request. If the Commissioner makes a written request for records to the Permittee, the Permittee shall furnish the records to the Commissioner within a reasonable time.
- (b) Records of required monitoring information shall include, where applicable:
 - (1) The date, place, and time of sampling or measurements;
 - (2) The dates analyses were performed;
 - (3) The company or entity performing the analyses;
 - (4) The analytic techniques or methods used;
 - (5) The results of such analyses; and
 - (6) The operating conditions existing at the time of sampling or measurement.

Page 12 of 22 MSOP 005-15444-00053

Cummins, Inc. Columbus, Indiana Permit Reviewer: ERG/YC

- (c) Support information shall include, where applicable:
 - (1) Copies of all reports required by this permit;
 - (2) All original strip chart recordings for continuous monitoring instrumentation;
 - (3) All calibration and maintenance records;
 - (4) Records of preventive maintenance shall be sufficient to demonstrate that failure to implement the Preventive Maintenance Plan did not cause or contribute to a violation of any limitation on emissions or potential to emit. To be relied upon subsequent to any such violation, these records may include, but are not limited to: work orders, parts inventories, and operator's standard operating procedures. Records of response steps taken shall indicate whether the response steps were performed in accordance with the Compliance Response Plan required by Section C Compliance Response Plan Preparation, Implementation, Records, and Reports, of this permit, and whether a deviation from a permit condition was reported. All records shall briefly describe what maintenance and response steps were taken and indicate who performed the tasks.
- (d) All record keeping requirements not already legally required shall be implemented when operation begins.

C.16 General Reporting Requirements [326 IAC 2-1.1-11] [326 IAC 2-6.1-2] [IC 13-14-1-13]

(a) Reports required by conditions in Section D of this permit shall be submitted to:

Indiana Department of Environmental Management Compliance Data Section, Office of Air Quality 100 North Senate Avenue, P. O. Box 6015 Indianapolis, Indiana 46206-6015

- (b) Unless otherwise specified in this permit, any notice, report, or other submission required by this permit shall be considered timely if the date postmarked on the envelope or certified mail receipt, or affixed by the shipper on the private shipping receipt, is on or before the date it is due. If the document is submitted by any other means, it shall be considered timely if received by IDEM, OAQ, on or before the date it is due.
- (c) The first report shall cover the period commencing on the date of issuance of this permit and ending on the last day of the reporting period.

C.17 Annual Notification [326 IAC 2-6.1-5(a)(5)]

- (a) Annual notification shall be submitted to the Office of Air Quality stating whether or not the source is in operation and in compliance with the terms and conditions contained in this permit.
- (b) Noncompliance with any condition must be specifically identified. If there are any permit conditions or requirements for which the source is not in compliance at any time during the year, the Permittee must provide a narrative description of how the source did or will achieve compliance and the date compliance was, or will be, achieved. The notification must be signed by an authorized individual.

Page 13 of 22 MSOP 005-15444-00053

Cummins, Inc. Columbus, Indiana Permit Reviewer: ERG/YC

(c) The annual notice shall cover the time period from January 1 to December 31 of the previous year, and shall be submitted in the format attached no later than March 1 of each year to:

Compliance Branch, Office of Air Quality Indiana Department of Environmental Management 100 North Senate Avenue, P.O. Box 6015 Indianapolis, IN 46206-6015

(d) The notification shall be considered timely if the date postmarked on the envelope or certified mail receipt, or affixed by the shipper on the private shipping receipt, is on or before the date it is due. If the document is submitted by any other means, it shall be considered timely if received by IDEM, OAQ, on or before the date it is due.

Page 14 of 22 MSOP 005-15444-00053

Cummins, Inc. Columbus, Indiana Permit Reviewer: ERG/YC

SECTION D.1 EMISSIONS UNIT OPERATION CONDITIONS

Facility Description [326 IAC 2-6.1]:

- (a) One (1) natural gas-fired boiler, using No. 2 fuel oil as a back-up, identified as Boiler #1, with a maximum heat input capacity of 20.9 million British thermal units (MMBtu) per hour, constructed before 1972, and exhausting to stack #1.
- (b) One (1) natural gas-fired boiler, using No. 2 fuel oil as a back-up, identified as Boiler #2, with a maximum heat input capacity of 14.6 million British thermal units (MMBtu) per hour, constructed before 1972, and exhausting to stack #2.

(The information describing the process contained in this facility description box is descriptive information and does not constitute enforceable conditions.)

Emission Limitations and Standards [326 IAC 2-6.1]

D.1.1 Particulate Matter (PM) [326 IAC 6-2-3]

Pursuant to 326 IAC 6-2-3 (d) (Particulate emission limitations for sources of indirect heating: emission limitations for facilities specified in 326 IAC 6-2-1 (b)), particulate emissions from each of the Boilers (Boiler #1 and Boiler #2), shall in no case exceed 0.8 pounds of particulate matter per million British thermal units heat input.

D.1.2 Sulfur Dioxide (SO₂) [326 IAC 7-1.1-2] [326 IAC 7-2-1]

- Pursuant to CP 005-7959-00053, issued on June 6, 1997 and 326 IAC 7-1.1 -2 (SO₂ Emissions Limitations), the SO₂ emissions from each boiler shall not exceed five-tenths (0.5) pound per million Btu heat input while combusting fuel oil.
- (b) Pursuant to 326 IAC 7-2-1, compliance shall be demonstrated on a calendar month average. At a heating value of 140,000 Btu per gallon of No.2 fuel oil, this condition is equivalent to a limit of 0.5% of sulfur content of the fuel oil.

D.1.3 Preventive Maintenance Plan [326 IAC 1-6-3]

A Preventive Maintenance Plan, in accordance with Section C - Preventive Maintenance Plan, of this permit, is required for this facility and its control device.

Compliance Determination Requirements [326 IAC 2-5.1-3(e)(2)] [326 IAC 2-6.1-5(a)(2)]

D.1.4 Sulfur Dioxide Emissions and Sulfur Content [326 IAC 3-7-4] [326 IAC 3-6]

Compliance with Condition D.1.2 shall be determined utilizing one of the following options:

- (a) Pursuant to 326 IAC 3-7-4, the Permittee shall demonstrate that the sulfur dioxide emissions do not exceed five-tenths (0.5) pound per million Btu heat input by:
 - (1) Providing vendor analysis of fuel delivered, if accompanied by a vendor certification; or
 - (2) Analyzing the oil sample to determine the sulfur content of the oil via the procedures in 40 CFR 60, Appendix A, Method 19.
 - (A) Oil samples may be collected from the fuel tank immediately after the fuel tank is filled and before any oil is combusted; and
 - (B) If a partially empty fuel tank is refilled, a new sample and analysis would be required upon filling.

Page 15 of 22 MSOP 005-15444-00053

Cummins, Inc. Columbus, Indiana Permit Reviewer: ERG/YC

(b) Compliance may also be determined by conducting a stack test for sulfur dioxide emissions from the boiler using 40 CFR 60, Appendix A, Method 6 in accordance with the procedures in 326 IAC 3-6.

A determination of noncompliance pursuant to any of the methods specified in (a) or (b) above shall not be refuted by evidence of compliance pursuant to the other method.

Compliance Monitoring Requirements [326 IAC 2-5.1-3(e)(2)] [326 IAC 2-6.1-5(a)(2)]

D.1.5 Visible Emissions Notations

- (a) Visible emission notations of the boiler stack exhausts shall be performed once per shift during normal daylight operations while combusting fuel oil. A trained employee shall record whether emissions are normal or abnormal.
- (b) For processes operated continuously, "normal" means those conditions prevailing, or expected to prevail, eighty percent (80%) of the time the process is in operation, not counting startup or shut down time.
- (c) In the case of batch or discontinuous operations, readings shall be taken during that part of the operation that would normally be expected to cause the greatest emissions.
- (d) A trained employee is an employee who has worked at the plant at least one (1) month and has been trained in the appearance and characteristics of normal visible emissions for that specific process.
- (e) The Compliance Response Plan for this unit shall contain troubleshooting contingency and response steps for when an abnormal emission is observed. Failure to take response steps in accordance with Section C Compliance Response Plan Preparation, Implementation, Records, and Reports, shall be considered a violation of this permit.

Record Keeping and Reporting Requirements [326 IAC 2-5.1-3(e)(2)] [326 IAC 2-6.1-5(a)(2)]

D.1.6 Record Keeping Requirements

- (a) To document compliance with Condition D.1.2, the Permittee shall maintain records in accordance with (1) through (6) below. Records maintained for (1) through (6) shall be taken monthly and shall be complete and sufficient to establish compliance with the SO₂ emission limit established in Condition D.1.2.
 - (1) Calendar dates covered in the compliance determination period;
 - (2) Actual fuel oil usage since last compliance determination period and equivalent sulfur dioxide emissions:
 - (3) A certification, signed by the owner or operator, that the records of the fuel supplier certifications represent all of the fuel combusted during the period. The natural gas fired boiler certification does require the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1); and

If the fuel supplier certification is used to demonstrate compliance the following, as a minimum, shall be maintained:

- (4) Fuel supplier certifications;
- (5) The name of the fuel supplier; and
- (6) A statement from the fuel supplier that certifies the sulfur content of the fuel oil.

The Permittee shall retain records of all recording/monitoring data and support information for a period of five (5) years, or longer if specified elsewhere in this permit,

Page 16 of 22 MSOP 005-15444-00053

Cummins, Inc. Columbus, Indiana Permit Reviewer: ERG/YC

from the date of the monitoring sample, measurement, or report. Support information includes all calibration and maintenance records and all original strip-chart recordings for continuous monitoring instrumentation, and copies of all reports required by this permit.

- (b) To document compliance with Condition D.1.5, the Permittee shall maintain records of visible emission notations of the boiler stack exhausts while combusting fuel oil.
- (c) All records shall be maintained in accordance with Section C General Record Keeping Requirements, of this permit.

D.1.7 Reporting Requirements

The Permittee shall certify, on the form provided, that natural gas was fired in the boiler at all times during each quarter. Alternatively, the Permittee shall report the number of days during which an alternate fuel was burned during each quarter.

SECTION D.2

EMISSIONS UNIT OPERATION CONDITIONS

Facility Description [326 IAC 2-6.1]:

(c) One (1) No.2 fuel-fired emergency generator, identified as FSP-95-01, with a maximum heat input capacity of 4.16 million British thermal units (MMBtu) per hour, operating less than 500 hours per year, and exhausting at stack # FSP-95-01.

(The information describing the process contained in this facility description box is descriptive information and does not constitute enforceable conditions.)

Emission Limitations and Standards

D.2.1 Limitation on Operating Hours

Operation of this emergency generator shall in no case exceed 500 hours of operation per twelve (12) consecutive month period. Any changes to the source that would require operating either emergency generator for more than 500 hours per year requires prior approval from IDEM, OAQ.

Record Keeping and Reporting Requirements [326 IAC 2-5.1-3(e)(2)] [326 IAC 2-6.1-5(a)(2)]

D.2.2 Record Keeping Requirements

(a) To document compliance with Condition D.2.1, the Permittee shall maintain records of the dates of operation and the number of hours of operation for the generator.

The Permittee shall retain records of all data and support information for a period of five (5) years, or longer if specified elsewhere in this permit, from the date of the monitoring sample, measurement, or report.

(b) All records shall be maintained in accordance with Section C - General Record Keeping Requirements, of this permit.

SECTION D.3

EMISSIONS UNIT OPERATION CONDITIONS

Facility Description [326 IAC 2-6.1]:

- (d) One (1) No. 2 fuel storage tank, with a maximum capacity of 10,000 gallons, constructed in 1996.
- (e) One (1) gasoline storage tank, with a maximum capacity of 500 gallons, constructed in 1996.
- (f) One (1) diesel fuel system manufacturing line, with maximum production rates of 20,000 fuel injectors and 6,800 fuel pumps per month, with the PM10 and SO₂ emissions less than five (5) pounds per hour or twenty-five (25) pounds per day, CO emissions less than twenty-five (25) pounds per day, lead emissions less than six-tenths (0.6) tons per year or three and twenty-nine (3.29) pounds per day, and emitting greater than one (1) pound per day but less than five (5) pounds per day or one (1) ton per year of a single HAP, or emitting greater than one (1) pound per day but less than twelve and five tenths (12.5) pounds per day or two and five tenths (2.5) ton per year of any combination of HAPs, including the following processes:
 - (1) Lubrite process for the fuel pump bases, including cleaning with an alkaline cleaner, grain refining, and coating with iron-phosphate acid.
 - (2) Test rigs for fuel pumps and injectors, which circulate a simulated diesel fuel (16A calibration fluid) in a closed loop system to simulate the operation of diesel fuel in an engine.
 - (3) Test stands for fuel injectors, which circulate a simulated diesel fuel (1487 calibration fluid) in a closed loop system to simulate the operation of diesel fuel in an engine.
 - (4) Metal machining processes, using a water based coolant and tooling process to remove the excess metal from parts.
 - (5) Water jet de-burring process, using water jets to removed excess metal from parts.
 - (6) Water cooling towers.
 - (7) Extrude hone process, used to remove excess metal from parts by pressing a semisolid media through parts.
 - (8) Ultrasonic parts washers, using alkaline chemicals to removed residual oils, coolants, and debris from the injector parts.
 - (9) Electric VPC Process Units, used to heat treat metal parts.
 - (10) Poppers, used to test pressure resistance in the fuel injectors and to remove any residual metal from the fuel injectors.

(The information describing the process contained in this facility description box is descriptive information and does not constitute enforceable conditions.)

Emission Limitations and Standards

No specifically applicable requirements apply to these units.

Page 19 of 22 MSOP 005-15444-00053

Cummins, Inc. Columbus, Indiana Permit Reviewer: ERG/YC

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT OFFICE OF AIR QUALITY COMPLIANCE DATA SECTION

MINOR SOURCE OPERATING PERMIT (MSOP) NATURAL GAS FIRED BOILER CERTIFICATION

Source Name: Cummins, Inc.

Source Address: 1460 National Road, Columbus, Indiana 47201 Mailing Address: P.O. Box 3005, Columbus, Indiana 47202-3005

MSOP No.: 005-15444-00053

9 9	Natural Gas Only Alternate Fuel burned From: To:							
	I certify that, based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate, and complete.							
Signa	rure:							
Printe	d Name:							
Title/P	osition:							
Date:								

A certification by the responsible official as defined by 326 IAC 2-1.1-1 is required for this report.

Page 20 of 22 MSOP 005-15444-00053

Cummins, Inc. Columbus, Indiana Permit Reviewer: ERG/YC

Company Name:

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT OFFICE OF AIR QUALITY Compliance Branch

MINOR SOURCE OPERATING PERMIT ANNUAL NOTIFICATION

This form should be used to comply with the notification requirements under 326 IAC 2-6.1-5(a)(5).

Cummins, Inc.

Address: 1460 National Road						
City:	Columbus, I	Indiana 47201				
Phone #: (812) 377-5000						
MSOP #:	005-15444-0	0053				
I hereby certify that	Cummins, Inc. is	9 still in operation.9 no longer in operation.				
I hereby certify that	Cummins, Inc. is	9 in compliance with the requirements of MSOP 005-15444-00053. 9 not in compliance with the requirements of MSOP 005-15444-00053.				
Authorized Indiv	idual (typed):					
Title:						
Signature:						
Date:						
		ents for which the source is not in compliance, provide a narrative II achieve compliance and the date compliance was, or will be				
Noncompliance:						

*SEE PAGE 2

MALFUNCTION REPORT

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT OFFICE OF AIR QUALITY FAX NUMBER - 317 233-5967

	ly be used to report to qualify for the ex		icable to Rule 326 IAC 1-6 IAC 1-6-4.	
THIS FACILITY MEETS THE APPLICABE PARTICULATE MATTER?, 25 TO 25 TONS/YEAR VOC?, 25 TONS/YEAR REDUCED SUTONS/YEAR CARBON MONOXIDE?TONS/YEAR ANY COMBINATION HAZAMEASURED AS ELEMENTAL LEAD?_FROM MALFUNCTIONING CONTROLE APPLICABLE LIMITATION	ONS/YEAR SULFUR /YEAR HYDROGEN JLFUR COMPOUNDS, 10 TONS/YEAR ARDOUS AIR POLLU, OR IS A SOUR	DIOXIDE ?, ; SULFIDE ?, 2 S ?, 25 TONS ANY SINGLE HAZ JTANT ?, 1 TO RCE LISTED UNDER	25 TONS/YEAR NITROGEN 5 TONS/YEAR TOTAL RED YEAR FLUORIDES ? ARDOUS AIR POLLUTANT DN/YEAR LEAD OR LEAD O 3 326 IAC 2-5.1-3(2) ?	OXIDES?, DUCED SULFUR , 100 ?, 25 COMPOUNDS . EMISSIONS
THIS MALFUNCTION RESULTED IN A PERMIT LIMIT OF	VIOLATION OF: 326	IAC OR, P	ERMIT CONDITION #	AND/OR
THIS INCIDENT MEETS THE DEFINITION	ON OF 'MALFUNCTI	ON' AS LISTED ON	REVERSE SIDE ? Y	N
THIS MALFUNCTION IS OR WILL BE LO	ONGER THAN THE	ONE (1) HOUR REP	ORTING REQUIREMENT?	YN
COMPANY:	PHONE NO.		LOCATION:	
PERMIT NO.		AFS PLANT ID: A	FS POINT ID:	INSP:
CONTROL/PROCESS DEVICE WHICH M	IALFUNCTIONED AN	ND REASON:		
DATE/TIME MALFUNCTION STARTED: _	// 20			AM / PM
ESTIMATED HOURS OF OPERATION W	ITH MALFUNCTION	CONDITION:		
DATE/TIME CONTROL EQUIPMENT BA	ACK-IN SERVICE	// 20	AM/PN	1
TYPE OF POLLUTANTS EMITTED: TSP	P, PM-10, SO2, V	OC, OTHER:		
ESTIMATED AMOUNT OF POLLUTANT E	EMITTED DURING M	IALFUNCTION:		
MEASURES TAKEN TO MINIMIZE EMISS	SIONS:			
REASONS WHY FACILITY CANNOT BE	SHUTDOWN DURIN	G REPAIRS:		
CONTINUED OPERATION REQUIRED TO CONTINUED OPERATION NECESSARY CONTINUED OPERATION NECESSARY INTERIM CONTROL MEASURES: (IF API	TO PREVENT INJUITO PREVENT SEVE	RY TO PERSONS: ERE DAMAGE TO E	QUIPMENT:	
MALFUNCTION REPORTED BY:			TITLE:	
	(SIGNATURE IF FA	AXED)		
MALFUNCTION RECORDED BY:	D	ATE:	TIME:	

Please note - This form should only be used to report malfunctions applicable to Rule 326 IAC 1-6 and to qualify for the exemption under 326 IAC 1-6-4.

326 IAC 1-6-1 Applicability of rule

Sec. 1. This rule applies to the owner or operator of any facility required to obtain a permit under 326 IAC 2-5.1 or 326 IAC 2-6.1.

326 IAC 1-2-39 "Malfunction" definition

If this item is checked on the front, please explain rationale:

Sec. 39. Any sudden, unavoidable failure of any air pollution control equipment, process, or combustion or process equipment to operate in a normal and usual manner.

*<u>Essential services</u> are interpreted to mean those operations, such as, the providing of electricity by power plants. Continued operation solely for the economic benefit of the owner or operator shall not be sufficient reason why a facility cannot be shutdown during a control equipment shutdown.

Indiana Department of Environmental Management Office of Air Quality

Technical Support Document (TSD) for a Minor Source Operating Permit

Source Background and Description

Source Name: Cummins, Inc.

Source Location: 1460 National Road, Columbus, Indiana 47201

County: Bartholomew

SIC Code: 3519

Operation Permit No.: 005-15444-00053

Permit Reviewer: ERG/YC

The Office of Air Quality (OAQ) has reviewed an application from Cummins, Inc. relating to the operation of a diesel fuel system manufacturing plant.

Source Definition

Cummins, Inc. owns the three (3) plants in Columbus, Indiana, which have the same SIC code of 3519:

- (b) Plant ID #005-00015, located at 1000 5th Street, Columbus, Indiana 47201;
- (a) Plant ID #005-00053, located at 1460 National Road, Columbus, Indiana 47201; and
- (b) Plant ID #005-00069, located at 1532 East 14th Street, Columbus, Indiana 47201.

However, these three plants are at least 3 miles away from each other. Therefore, these three plants will not be considered as one (1) source. Currently, plant 005-00015 has a Part 70 permit #005-7433-00015, issued on May 15, 2001; plant 005-00069 has a Part 70 permit #005-7068-00069, issued on April 20, 2000.

Permitted Emission Units and Pollution Control Equipment

The source consists of the following permitted emission units and pollution control devices:

- (a) One (1) natural gas-fired boiler, using No. 2 fuel oil as a back-up, identified as Boiler #1, with a maximum heat input capacity of 20.9 million British thermal units (MMBtu) per hour, constructed before 1972, and exhausting to stack #1.
- (b) One (1) natural gas-fired boiler, using No. 2 fuel oil as a back-up, identified as Boiler #2, with a maximum heat input capacity of 14.6 million British thermal units (MMBtu) per hour, constructed before 1972, and exhausting to stack #2.

Cummins, Inc.

Page 2 of 8

Columbus, Indiana

Permit Reviewer: ERG/YC

Page 2 of 8

MSOP 005-15444-00053

(c) One (1) No.2 fuel-fired emergency generator, identified as FSP-95-01, with a maximum heat input capacity of 4.16 million British thermal units (MMBtu) per hour, operating less

than 500 hours per year, and exhausting at stack # FSP-95-01.

- (d) One (1) No. 2 fuel storage tank, with a maximum capacity of 10,000 gallons, constructed in 1996.
- (e) One (1) gasoline storage tank, with a maximum capacity of 500 gallons, constructed in 1996.
- (f) One (1) diesel fuel system manufacturing line, with maximum production rates of 20,000 fuel injectors and 6,800 fuel pumps per month, with the PM10 and SO₂ emissions less than five (5) pounds per hour or twenty-five (25) pounds per day, CO emissions less than twenty-five (25) pounds per day, lead emissions less than six-tenths (0.6) tons per year or three and twenty-nine (3.29) pounds per day, and emitting greater than one (1) pound per day but less than five (5) pounds per day or one (1) ton per year of a single HAP, or emitting greater than one (1) pound per day but less than twelve and five tenths (12.5) pounds per day or two and five tenths (2.5) ton per year of any combination of HAPs, including the following processes:
 - (1) Lubrite process for the fuel pump bases, including cleaning with an alkaline cleaner, grain refining, and coating with iron-phosphate acid.
 - (2) Test rigs for fuel pumps and injectors, which circulate a simulated diesel fuel (16A calibration fluid) in a closed loop system to simulate the operation of diesel fuel in an engine.
 - (3) Test stands for fuel injectors, which circulate a simulated diesel fuel (1487 calibration fluid) in a closed loop system to simulate the operation of diesel fuel in an engine.
 - (4) Metal machining processes, using a water based coolant and tooling process to remove the excess metal from parts.
 - (5) Water jet de-burring process, using water jets to removed excess metal from parts.
 - (6) Water cooling towers.
 - (7) Extrude hone process, used to remove excess metal from parts by pressing a semi-solid media through parts.
 - (8) Ultrasonic parts washers, using alkaline chemicals to removed residual oils, coolants, and debris from the injector parts.
 - (9) Electric VPC Process Units, used to heat treat metal parts.
 - (10) Poppers, used to test pressure resistance in the fuel injectors and to remove any residual metal from the fuel injectors.
- *(g) One (1) natural gas-fired boiler, identified as Boiler #3, with a maximum heat input capacity of 5.23 million British thermal units (MMBtu) per hour, and exhausting to stack #34.
- *(h) One (1) natural gas-fired boiler, identified as Boiler #4, with a maximum heat input capacity of 6.28 million British thermal units (MMBtu) per hour, and exhausting to stack #34.

*(i) One (1) natural gas fired generator, identified as FSP-95-02, with a maximum heat input capacity of 3.62 million British thermal units (MMBtu) per hour, and exhausting at stack # FSP-95-02.

*Note: Emission units (g), (h), and (i) were removed from this source in 1999.

Unpermitted Emission Units and Pollution Control Equipment

There are no unpermitted units operating at this source during this review process.

New Emission Units and Pollution Control Equipment Receiving Prior Approval

There are no new construction activities included in this permit.

Existing Approvals

The source has been operating under previous approvals including, but not limited to, the following:

- (a) Administrative Amendment 005-9648-00053, issued on March 23, 1999;
- (b) Construction Permit 005-7959-00053, issued on June 6, 1997;
- (c) Construction Permit 005-5127-00053, issued on March 25, 1996; and
- (d) Construction Permit 005-2978-00053 issued on September 17, 1993.

All conditions from previous approvals were incorporated into this permit except the following:

(a) CP 005-5127-00053, issued on March 25, 1996:

Operation Condition 3 limited the number of hours of operation of No. 2 fuel-fired emergency generator to less than 744 hours per year.

Changes to original conditions:

The source has agreed to limit the operating hours for the emergency generator to less than 500 hours per year because this generator meets EPA's definition of an emergency generator.

(b) CP 005-5127-00053, issued on March 25, 1996:

Operation Condition 4 required the Permittee to submit an annual emission statement by July 1 of each year.

Changes to original conditions:

The Permittee removed two boilers and one power generator in 1999. The source is located in Bartholomew County and the potential emissions of each criteria pollutant are less than 100 tons per year. Therefore, no emission statement is required.

(c) CP 005-2978-00053, issued on September 17, 1993:

This construction permit was issued for the following generators

(1) A Cummins K19G3 engine burning No. 2 diesel fuel; and

(2) A 500 KW generator.

Changes to the original conditions:

The Permittee has removed these generators from this facility. Therefore, the conditions corresponding to these generators are not included in this permit

(d) CP 005-7959-00053, issued on June 6, 1997:

Boiler #1 was described as venting through stack #2 and Boiler #2 was described as venting through stack #1.

Changes to the original conditions:

The Permittee has indicated that the stack numbers specified in CP 005-7959-00053 were incorrect. The stack identification number for the Boiler #1 shall be stack #1 and the stack identification number for the Boiler #2 shall be stack #2. These change has been made in this permit.

Enforcement Issue

There are no enforcement actions pending.

Stack Summary

Stack ID	Operation	Height (feet)	Diameter (feet)	Flow Rate (acfm)	Temperature (°F)
#1	Boiler #1	45	1.5	244	unknown
#2	Boiler #2	45	2.0	349	unknown
FSP-95-01	Generator	28	0.5	3,630	9.5

Recommendation

The staff recommends to the Commissioner that the operation be approved. This recommendation is based on the following facts and conditions:

Unless otherwise stated, information used in this review was derived from the application and additional information submitted by the applicant.

A complete application for the purposes of this review was received on April 2, 2002. Additional information was received on April 23, 2002, May 15, 2002, and June 13, 2002.

Emission Calculations

See Appendix A of this document for detailed emissions calculations (pages 1 through 3).

Potential To Emit of Source Before Controls

Pursuant to 326 IAC 2-1.1-1(16), Potential to Emit is defined as "the maximum capacity of a stationary source or emissions unit to emit any air pollutant under its physical and operational design. Any physical or operational limitation on the capacity of a source to emit an air pollutant, including air pollution control equipment and restrictions on hours of operation or type or amount of material combusted, stored, or processed shall be treated as part of its design if the limitation is enforceable by the U. S. EPA, the department, or the appropriate local air pollution control agency."

Page 5 of 8 MSOP 005-15444-00053

Cummins, Inc. Columbus, Indiana Permit Reviewer: ERG/YC

Pollutant	Potential To Emit (tons/year)
PM	4.0
PM-10	4.0
SO ₂	79.2
VOC	1.2
СО	14.1
NO _x	26.8

HAP's	Potential To Emit (tons/year)
Total	Negligible

Note: The PTE for the emergency generator was calculated at a maximum of 500 hours of operation per twelve (12) consecutive month period.

- (a) The potential to emit (as defined in 326 IAC 2-1.1-1(16)) of all pollutants are less than 100 tons per year. Therefore, the source is not subject to the provisions of 326 IAC 2-7.
- (b) The potential to emit (as defined in 326 IAC 2-1.1-1(16)) of SO_x and NO_x are greater than 25 tons per year, therefore, the source is subject to the provisions of 326 IAC 2-6.1.
- (c) The potential to emit (as defined in 326 IAC 2–1.1-1(16)) of any single HAP is less than ten (10) tons per year and/or the potential to emit (as defined in 326 IAC 2-1.1-1(16)) of a combination of HAPs is less than twenty-five (25) tons per year, therefore, the source is not subject to the provisions of 326 IAC 2-7.
- (d) Fugitive Emissions
 Since this type of operation is not one of the twenty-eight (28) listed source categories under 326 IAC 2-2 and since there are no applicable New Source Performance Standards that were in effect on August 7, 1980, the fugitive particulate matter (PM) and volatile organic compound (VOC) emissions are not counted toward determination of PSD and Emission Offset applicability.

County Attainment Status

The source is located in Bartholomew County.

Pollutant	Status
PM-10	Attainment
SO ₂	Attainment
NO ₂	Attainment
Ozone	Attainment
СО	Attainment
Lead	Attainment

- (a) Volatile organic compounds (VOC) are precursors for the formation of ozone. Therefore, VOC emissions are considered when evaluating the rule applicability relating to the ozone standards. Bartholomew County has been designated as attainment or unclassifiable for ozone. Therefore, VOC emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2 and 40 CFR 52.21.
- (b) Bartholomew County has been classified as attainment or unclassifiable for all other criteria pollutants. Therefore, these emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2 and 40 CFR 52.21.

Page 6 of 8 MSOP 005-15444-00053

Cummins, Inc. Columbus, Indiana Permit Reviewer: ERG/YC

(c) Fugitive Emissions

Since this type of operation is not one of the 28 listed source categories under 326 IAC 2-2, 40 CFR 52.21, or 326 IAC 2-3 and since there are no applicable New Source Performance Standards that were in effect on August 7, 1980, the fugitive particulate matter (PM) and volatile organic compound (VOC) emissions are not counted toward determination of PSD and Emission Offset applicability.

Source Status

Existing Source PSD Definition (emissions after controls, based on 8,760 hours of operation per year at rated capacity and/ or as otherwise limited):

Pollutant	Emissions (ton/yr)
PM	4.0
PM10	4.0
SO ₂	79.2
VOC	1.2
CO	14.1
NO _x	26.8

(a) This existing source is **not** a major stationary source because no attainment regulated pollutant is emitted at a rate of 250 tons per year or more, and it is not in one of the 28 listed source categories.

Part 70 Permit Determination

326 IAC 2-7 (Part 70 Permit Program)

This existing source is not subject to the Part 70 Permit requirements because the potential to emit (PTE) of:

- (a) each criteria pollutant is less than 100 tons per year,
- (b) a single hazardous air pollutant (HAP) is less than 10 tons per year, and
- (c) any combination of HAPs is less than 25 tons/year.

Federal Rule Applicability

- (a) There are no New Source Performance Standards (NSPS)(326 IAC 12 and 40 CFR Part 60) applicable to this source.
- (b) Boilers #1 and #2 were constructed before June 8, 1972 and were not modified or reconstructed after June 9, 1989. Therefore, the requirements of the New Source Performance Standard, 326 IAC 12, (40 CFR 60.40c-48c, Subpart Dc) are not applicable to these boilers.
- (c) The storage tanks have a maximum capacity less than 40 cubic meters (10,560 gallons). Therefore, the New Source Performance Standards for Volatile Organic Liquid Storage Vessels for which construction, reconstruction, or modification commenced after July 23, 1984 (40 CFR 60.110b 117b, Subpart Kb) are not applicable to these tanks.
- (d) There are no National Emission Standards for Hazardous Air Pollutants (NESHAPs)(326 IAC 14 and 40 CFR Part 63) applicable to this source.

Page 7 of 8 MSOP 005-15444-00053

Cummins, Inc. Columbus, Indiana Permit Reviewer: ERG/YC

State Rule Applicability - Entire Source

326 IAC 2-2 (Prevention of Significant Deterioration (PSD))

The source is not 1 of 28 source categories defined in 326 IAC 2-2-1(p)(1) and has the potential to emit of any regulated pollutant after controls less than two hundred and fifty (250) tons per twelve (12) consecutive month period. Therefore, the requirements of 326 IAC 2-2 do not apply.

326 IAC 2-4.1 (New Sources of Hazardous Air Pollutants)

The source was constructed prior to July 27, 1997 and has HAP emissions from the entire source less than the major source thresholds. Therefore, the requirements of 326 IAC 2-4.1 do not apply.

326 IAC 2-6 (Emission Reporting)

This source is located in Bartholomew County and the potential to emit all criteria pollutants is less than one hundred (100) tons per year. Therefore, 326 IAC 2-6 does not apply.

326 IAC 5-1 (Opacity Limitations)

Pursuant to 326 IAC 5-1-2 (Opacity Limitations), except as provided in 326 IAC 5-1-3 (Temporary Alternative Opacity Limitations), opacity shall meet the following, unless otherwise stated in this permit:

- (a) Opacity shall not exceed an average of forty percent (40%) any one (1) six (6) minute averaging period as determined in 326 IAC 5-1-4.
- (b) Opacity shall not exceed sixty percent (60%) for more than a cumulative total of fifteen (15) minutes (sixty (60) readings) as measured according to 40 CFR 60, Appendix A, Method 9 or fifteen (15) one (1) minute nonoverlapping integrated averages for a continuous opacity monitor) in a six (6) hour period.

State Rule Applicability - Boilers

326 IAC 6-2-3 (PM Emissions for Sources of Indirect Heating)

Boilers #1 and #2 were constructed before 1972. Pursuant to 326 IAC 6-2-3, boilers existing and in operation before June 8, 1972 shall be limited by the following equation or by 0.8 lbs per MMBtu, whichever is more stringent:

Pt =
$$\frac{C \times a \times h}{76.5 \times Q^{0.75} \times N^{0.25}}$$

Where

C = max ground level concentration (= 50 Fm/m³)

Pt = emission rate limit (lbs/MMBtu)

Q = total source heat input capacity (MMBtu/hr)

N = number of stacks = 2

a = plume rise factor = 0.67

h = stack height (ft) = 45 ft

The emission rate limit established from the equation above equals:

Pt =
$$\frac{50 \times 0.67 \times 45}{76.5 \times (20.9 + 14.6)^{0.75} \times 2^{0.25}}$$
 = 1.14 lbs/MMBtu

Therefore, the most stringent PM emission limit for these boilers are 0.8 lbs/MMBtu.

Cummins, Inc.

Page 8 of 8
Columbus, Indiana

MSOP 005-15444-00053

Permit Reviewer: ERG/YC

326 IAC 7-1.1-2 (SO₂ Emission Limitations)

The potential emissions of SO_2 from Boiler #1 and Boiler #2 are greater than 25 tons per year. Pursuant to 326 IAC 7-1.1-2, sulfur dioxide emissions from these boilers shall be limited to 0.5 pounds per million Btu heat input, when burning No. 2 fuel oil.

State Rule Applicability - Storage Tanks

326 IAC 8-9 (Volatile Organic Liquid Storage Vessels)

The source is not located in Clark, Floyd, Lake, or Porter County. Therefore, 326 IAC 8-9-1 does not apply to the gasoline and the diesel fuel storage tanks.

State Rule Applicability - Emergency Generator

For the emergency generator, the potential to emit air pollutants was calculated at a maximum of 500 operating hours per year. As a result, the following condition is required for this generator.

Operation of the emergency generator shall in no case exceed 500 hours of operation per twelve (12) consecutive month period. Any changes to the source that would require operating the emergency generator for more than 500 hours per year requires prior approval from IDEM, OAQ.

Conclusion

The operation of this diesel engine fuel system manufacturing plant shall be subject to the conditions of the attached proposed Minor Source Operating Permit 005-15444-00053.

Appendix A: Emission Calculations From Boiler #1 (20.9 MMBtu/hr)

Company Name: Cummins, Inc.

Address City IN Zip: 1460 National Road, Columbus, IN 47201

MSOP: 005-15444-00053 Reviewer: ERG/YC Date: April 17, 2002

1. Potential Emissions While Burning Natural Gas:

Heat Input Capacity Potential Throughput MMBtu/hr MMCF/yr

20.9

Pollutant

1 Ollatarit							
	PM*	PM10*	SO ₂	**NO _x	VOC	CO	
Emission Factor in lb/MMCF	7.6	7.6	0.6	100	5.5	84.0	
Detential Emission in towards	0.70	0.70	0.05	0.40	0.50	7 70	
Potential Emission in tons/yr	0.70	0.70	0.05	9.16	0.50	7.70	

^{*}PM and PM10 emission factors are condensable and filterable PM10 combined.

Methodology

All Emission factors are based on normal firing. MMBtu = 1,000,000 Btu

MMCF - 1,000,000 Cubic Feet of Gas

Potential Throughput (MMCF) = Heat Input Capacity (MMBtu/hr) \times 8,760 hrs/yr \times 1 MMCF/1,000 MMBtu Emission Factors from AP-42, Chapter 1.4, Tables 1.4-1, 1.4-2, and 1.4-3, SCC #1-02-006-02, 1-01-006-02, 1-03-006-02, and 1-03-006-03 (AP-42 Supplement D 3/98)

 $Emission \ (tons/yr) = Throughput \ (MMCF/yr) \ x \ Emission \ Factor \ (lb/MMCF)/2,000 \ lb/ton$

2. Potential Emissions While Burning Back-up No. 2 Fuel Oil:

 Heat Input Capacity
 Potential Throughput
 S = Weight % Sulfur

 MMBtu/hr
 kgals/year
 0.5

20.9

	Pollutant					
	PM*	PM10*	SO2	NO _x	VOC	CO
Emission Factor in lb/kgal	3.3	3.3	71	20.0	0.34	5.0
			(142.0 S)			
Potential Emission in tons/yr	2.16	2.16	46.47	13.09	0.22	3.27

^{*}PM and PM10 emission factors are condensable and filterable PM10 combined.

Methodology

1 gallon of No. 2 Fuel Oil has a heating value of 140,000 Btu

Potential Throughput (kgals/year) = Heat Input Capacity (MMBtu/hr) x 8,760 hrs/yr x 1 kgal/1,000 gal x 1 gal/0.140 MMBtu

Emission Factors are from AP-42, Tables 1.3-1, 1.3-2, and 1.3-3 (SCC 1-03-005-01/02/03) Supplement E 9/98 (see errata file) Emission (tons/yr) = Throughput (kgals/yr) x Emission Factor (lb/kgal)/2,000 lb/ton

3. Total Potential Emissions from Boiler #1:

Pollutant	PM	PM10	SO ₂	NOx	VOC	СО
*Potential Emission (tons/yr)	2.16	2.16	46.47	13.09	0.50	7.70

^{*}Potential emissions from the combustion are determined by the worst case situation between burning natural gas or No.2 fuel oil.

^{**}Emission Factors for NO_x: Uncontrolled = 100, Low NO_x Burner = 50, Low NO_x Burners/Flue gas recirculation = 32

Appendix A: Emission Calculations From Boiler #2 (14.6 MMBtu/hr)

Company Name: Cummins, Inc.

Address City IN Zip: 1460 National Road, Columbus, IN 47201

MSOP: 005-15444-00053 Reviewer: ERG/YC Date: April 17, 2002

1. Potential Emissions While Burning Natural Gas:

Heat Input Capacity Potential Throughput MMBtu/hr MMCF/yr

14.6

Pollutant

Emission Factor in lb/MMCF	PM*	PM10*	SO ₂	**NO _x	VOC	CO
	7.6	7.6	0.6	100	5.5	84.0
Potential Emission in tons/yr	0.49	0.49	0.04	6.39	0.35	5.37

^{*}PM and PM10 emission factors are condensable and filterable PM10 combined.

Methodology

All Emission factors are based on normal firing. MMBtu = 1,000,000 Btu

MMCF - 1,000,000 Cubic Feet of Gas

Potential Throughput (MMCF) = Heat Input Capacity (MMBtu/hr) x 8,760 hrs/yr x 1 MMCF/1,000 MMBtu Emission Factors from AP-42, Chapter 1.4, Tables 1.4-1, 1.4-2, and 1.4-3, SCC #1-02-006-02, 1-01-006-02, 1-03-006-02, and 1-03-006-03 (AP-42 Supplement D 3/98)

Emission (tons/yr) = Throughput (MMCF/yr) x Emission Factor (lb/MMCF)/2,000 lb/ton

2. Potential Emissions While Burning Back-up No. 2 Fuel Oil:

Heat Input Capacity

MMBtu/hr

Potential Throughput

kgals/year

S = Weight % Sulfur

0.5

14.6 913.5

	Pollutant					
	PM*	PM10*	SO2	NO _x	VOC	CO
Emission Factor in lb/kgal	3.3	3.3	71	20.0	0.34	5.0
			(142.0 S)			
Potential Emission in tons/yr	1.51	1.51	32.43	9.14	0.16	2.28

^{*}PM and PM10 emission factors are condensable and filterable PM10 combined.

Methodology

1 gallon of No. 2 Fuel Oil has a heating value of 140,000 Btu

Potential Throughput (kgals/year) = Heat Input Capacity (MMBtu/hr) x 8,760 hrs/yr x 1 kgal/1,000 gal x 1 gal/0.140 MMBtu

Emission Factors are from AP-42, Tables 1.3-1, 1.3-2, and 1.3-3 (SCC 1-03-005-01/02/03) Supplement E 9/98 (see errata file) Emission (tons/yr) = Throughput (kgals/yr) x Emission Factor (lb/kgal)/2,000 lb/ton

3. Total Potential Emissions from Boiler #2:

Pollutant	РМ	PM10	SO ₂	NOx	VOC	СО
*Potential Emission (tons/yr)	1.51	1.51	32.43	9.14	0.35	5.37

^{*}Potential emissions from the combustion are determined by the worst case situation between burning natural gas or No.2 fuel oil.

^{**}Emission Factors for NO_x: Uncontrolled = 100, Low NO_x Burner = 50, Low NO_x Burners/Flue gas recirculation = 32

Appendix A: Emission Calculations Internal Combustion Engines

From the Diesel Emergency Generator (FSP-95-01)

Company Name: Cummins, Inc.

Address City IN Zip: 1460 National Road, Columbus, IN 47201

MSOP: 005-15444-00053

Reviewer: ERG/YC

Date: April 17, 2002

Heat Input Operation Limit MMBtu/hr hr/yr

4.16 500

Pollutant

Emission Factor in lb/MMBtu	PM*	PM10*	SO2	NO _x	**VOC	CO
	0.31	0.31	0.29	4.41	0.35	0.95
Potential Emission in tons/yr	0.32	0.32	0.30	4.59	0.36	0.99

^{*}Assume PM10 emission equals to PM emissions.

Methodology

All Emission factors are based on normal firing.

Emission Factors from AP-42, Chapter 3.3, Table 3.3-1, SCC #2-02-001-02 and 2-03-001-01.(AP-42 Supplement B 10/96)

Emission (tons/yr) = Heat Input (MMBtu/hr) x Emission Factor (lb/MMBtu) x Operation Limit (hr/yr) x 1 lb/2,000 ton

^{**} Assume TOC (total organic compounds) emissions equal to VOC emissions.